

U. S. DEPARTMENT OF AGRICULTURE
BUREAU OF BIOLOGICAL SURVEY

Form Bi-689

FIELD DIARY

Mr. _____

Vernon Bailey

Washington D. C.

(Official title.)

Period, *Oct 1, 1929* to _____

Pennsylvania and Kentucky

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Notes for home + field

1929 & 1930.

Vernon Bailey
1834 Kala Iama Road.

October 1, 1929

Arrived in Washington at 3:45 PM on C & O from Frankfort Kentucky after a summer at the Grand Canyon and trip to California & return via Oklahoma City and Mammoth Cave, Ky.

In crossing the mountains by White Sulphur Springs the colors of forest trees were brilliant, but there was scarcely a trace of autumn color in the low country east or west of the mountains.

The climate at Mammoth Caves and at Washington seems to be about the same. No frost and mild weather up to Oct. 2, then a little colder and frosty nights soon after.

Oct. 13, Several frosty
nights have colored up
the trees beautifully around
Washington and the woods are
at this most brilliant period.

Oct. 17 - Gave talk on horned
toads and chuckwallas
at the meeting of the Vivarium
Society meeting in room
43 at National Museum

Oct. 14 - Attended conference on
boundaries of Grand Canyon
National Park at Major Sturgis
office in Forest Service Bld.
with Dr. Bell and J. C. Merriam.

Oct. 21 Heard lecture at Cosmos Club by
Dr. J. C. Merriam on The inspirational
Value of great scenery. Very good.

Oct. 22 Went to meeting of G.O.U. at Philadelphia, stopping at Benjamin Franklin hotel, attending meetings for 3 days at Phil. Acad. Nat. Sci.

Florence was elected a fellow of the Union, the first woman to be made a fellow as she was the first woman member of the Union in its early days.

Oct. 25 - Returned to Washington 8 PM, with bad cold.

Oct. 28, Received recommendations for enlarging boundary of Grand Canyon National Park to give standing room for more wild life on both north and south sides of Grand Canyon and inside of park boundaries.

Nov. 5 Packed up for trip to northern Pennsylvania to study deer forage conditions

Wrote H. D. Ruhl of the Conservation department at Lansing, Mich. of objections of opinion trapping season on beavers not opening.

Left Washington for Harrisburg at 6:30 AM. Arrived 9:50 AM.

Cold and clear with promise of a sharp frost before evening. Leaves mostly gone from trees.

Went to Penn Harris Hotel the best in Harrisburg where a double room with 2 beds and a bath cost us ~~as~~ 7.00 for two. Dr. W. B. Bell is with us.

Dr. D. Rearick, Anderson Creek, Pa.
Leroy R. Jefferson. Midx Run.
Davis,

NOV. 6. Went over to Game Department and saw J. F. Sautter,
Geo. Buttner, Dr. Wineapp,
and

Dr. W. D. Marsh arrived at
11:15 AM and we started
as soon as he arrived
for State College, Clearfield
and Game Refuge No. 2 at
Mr. L. D. Rearick's place.
Stopped at State College
where Dr. Forbes in
charge of Nutrition is planning to
feed the young deer Laurel and
Rutherford to test poison
qualities. He has 13 beautiful
healthy fawns, gentle and tame
readily for the experiment.

We talked over methods and
all angles of the test and
deer management in general -
Got supper at Clearfield
and visited Reardiles at 8 P.M.

Nov. 7. Drove over to
Game refuge No. 24 on
Marquette Creek and explored
over that country till after
noon. This is a high
plateau country, once a
wonderful forest of white pine
and hemlock, but all cut and
burned over until very open
but with much grass, aspen
and good young growth for
ducks and elk and grouse
and beaver and ducks.

Several big beaver ponds
are full of fine trout as
well as beavers.

Stony Jefferson, Refuge
keeper is trapping and got
2 red foxes and a raccoon
today and four skunks
yesterday and has a possum
and 4 raccoons alive in cages.
Also a live great horned owl.

Came back to No. 2 at night around by Maddix Run and Crystal Springs Camp. In all 55 miles today.

Counted 107 deer, of which only two were bucks with visible horns. They were mostly does with two fawns each.

The hunting season opens Dec. 2 for bucks only and will not greater reduce the very large number of deer. The Game Department expects a kill of 20,000.

The summer has been very dry and plant growth has been slight. There are no acorns or nuts or berries and the deer are in great danger if a severe winter follows the dry summer.

Dr. Merriam has this all written up in his manuscript.

Grizzly Bear Attack

J.J. Slaughterback tells us of a bear attacking Dr. Penrose, Pres. of the Pa. Game Com. on a hunting trip in the Rocky Mts. about 1917.

The Dr. went out from camp alone to look for bear and saw a young silver-tip male him and shot it & wounded it so it began to cry. In a minute the mother appeared and came at him. He shot several times, only wounding her and as she came close he climbed onto a rock, but she followed and caught him and got hold of his head but both fell and rolled down off the rock. The Dr.'s leg was broken in two places in the fall and his gun was knocked out of his hands.

At the bottom the old bear got up and struck him a couple of times and started for the cubs. He grabbed his gun and she returned and

cuffed him again, then went on to the cubs. Getting his gun ready he shot and killed her and then killed the other cub, so he got them all.

Then crawled to camp and was taken to a hospital and got well.

Slaughterback saw him while still lame the following summer but says he did not like to talk about the incident.

The important thing is that the old bear deliberately attacked him when the cub was hurt.

Nov. 8. Explored around the Game Refuge No. 2 and Forest Nursery and on the head of Stony Creek, then drove over to Game Refuge No. 1 in Clinton Co. and from thence to Lock Haven where we staid all night.

Saw few deer but much of the best deer range where food is scarce for the winter and many deer will starve if there is deep snow and long cold weather. Saw 7 deer, 3 of them bucks.

Saw lots of ruffed grouse along the way but there are no berries or good winter food. The grouse will live on buds and catkins and may come through all right. There is no shooting this fall.

Nov. 9 Drove from Loddfour
to Mifflinburg and then over to
Refuge No. 23 on Penn Creek
and tramped over the country
there. Found signs of turkey,
deer and squirrels and this is
a good bear country. Eight
bears have been killed here since
the first of the month and more
will be killed.

Saw some grouse but
there are no acorns or nuts
or berries and diet food
is also scarce.

Returned by the Woodward
Cave and got bats from it.
Eptesicus, Pipistrellus and two species
of Myotis. Probably 25 bats
seen all told, perfectly torpid.

Temperature of cave 45° ,
said to be 46° all summer.

Air damp and rats frequent.

Returned to Hinsdale 8:30 P.M.

Nov. 10, Returned to Washington
at 11:55 AM and packed up
for next trip to Warm Springs
Virginia and Mammoth Cave
Kentucky.
Clear and cold.

Nov. 11. Started at 8 AM
with Silver in his Dodge car
for Warm Springs, Va., to see
the lynx traps employed there
to protect the deer. Drove
through Falls Church, Luray,
Harrisonburg to Warm Springs
210 miles over mostly good
roads. Arrived at 5:30.

A warm day and very
pleasant trip. The leaves
are all off the trees except those
that stay on all winter, but
the oaks and pines make a
pleasing picture.

Stopped at Luray Caves
but was told that there are no
bats in it so did not go in.
The same at Blue Grottoes,
too at both places they told
us there were bats in some
of the little known caves.
Went into Blowing Caves
in windy gulch but found
no bats. The air was not much
wind coming out even as the
temperature is about the same
inside and out.

Stopped at Warm Springs
darn when Dr. Bell & I
stopped last spring.

Nov. 12, Went with Cheney to his cat traps along the top of Warm Springs Mountain ridge north of Warm Springs.

Caught nothing but saw where he had caught 4 bobcats, some gray foxes, Coon, skunk, Spilogale and turkey buzzards.

Left traps on top of ridge off two places, the farthest north at Bear Rocks.

In PM went to traps where he caught one deer bobcat at deer carcass on Game Sanctuary and found a young possum in it.

In evening went to meeting of local county game protection Association in Court house. Saw Haile and See the two wardens we went with last spring.

Talked to them on game management in Pennsylvania and on the needs of Virginia in game conservational management.

Had a small audience but considerably interest was shown and many questions asked.

Our trapper, Cheney, has caught 6 bobcats, 10 gray foxes, some corn & passion col skunks and two opossums. Has out four trap lines and goes to out long each day.

Had to take up his traps because the 4 day hunting season for deer begins tomorrow or next day and the hunters do not want any traps out.

Nov. 1st. Went with Cheney
to another trap line on Warm
Spring Ridge, south of Warm Springs
and took up the line of 15 traps.
Caught only one little coon
but saw where he had caught
a number of foxes and other things.
The little coon had nothing in
its stomach from the little
orange meated acorn of the
turkey oak, the only acorns
found in any abundance this
year. They grow on bushes 2 to
4 feet high on tops of the ridges
and were mainly loaded with
nuts. I packed two pockets
full to send to Pennsylvania.
Left Clinton Forge at 9 P.M.
for touristile & Cave City, Ky.

Nov. 14. Woke up in the
low country of West Virginia,
rainy and foggy so I could
not see much.

Reached Louisville at
10:55 AM, transferred
to L & N depo and waited
till 1 PM for train to
Cave City. Arrived at
4:30 PM.

Warm and cloudy.

Nov. 15, at Cave City, Ky.

Got Dick Noel and drove to Long Cave for bats. Found them abundant on the edges of the regular bat room at left of main tunnel where a few were found in April and September. Probably 1000 hanging on roof of this room and in bunches and long rows along the ledges on the ceiling. Little nubby calcite formations along the ledges afford favorite footing for the bats to cling to but often they hook their tails into the edge of a crack in the limestone. Some were in clusters of fours and others singly or in twos or threes. In places the ceiling was low so I could pick them off with my hands or set up the camera close enough for a flashlight.

Apparently all were Myotis
leucifugus except a dozen or
two dozen P. leucostomus

Farther back along the
main tunnel of the cave
They were hanging to the high
ceiling in about the same
abundance nearly to the first
deep hole where the ladders
go down and then up the
other side, - & nearly half
a mile back from the entrance.
Here were fully another thousand
and probably more, making
2000 or 3000 in the cave,
against a few dozen in Sept.

The temperature of the cave
was 54 in both rooms and
humidity at the saturation point.
Most of the bats were cold and torpid
and some were silvered all over
with dew from condensed moisture.

Apts using a powerful flashlight on them ^{the Moths} and talking near them some began to move about and a few to fly. In fact a few were seen flying when we first went in.

Others were perfectly torpid but when the light was held on them they soon began to vibrate more and more rapidly until they became limber enough to stretch a wing or leg and finally to fly. Others were not effected by light in the short time I could watch them and remained cold and motionless through my visit of an hour and two flashlight photographs.

The Pipistrellus subflavus were absolutely torpid and dead to the world but when put in the bag with Moths soon warmed up and were very active.

The pipistrellus all hung singly and were mostly in the back and of the left hand bat room beyond the Myotis. No difference of numbers or temperatures could be noticed in this corner nor any reason for this choice of roost be seen unless they went in first and got furthest back. They were silent while many of the myotis were squeaking and making little noise all the time apparently that in the bunches were trying to get fixed so they would be comfortable and not too crowded.

In the long cave tunnel I fired an aux load into a bunch on the roof high over head to see if they were the

same and brought down 14, 7 males and 7 females at one shot, showing that they were roost together in close bunches.

Another shot into a bunch on the roof of Dixon cave brought down a male and two females of Myotis lucifugus and three males of Myotis sodalis. but these two species are so much alike they could easily mistake their company. I can not detect any difference in odor nor any very perceptible odor to either.

All were fat, long furred and in prime condition for winter hibernation.

Those released from my bags at Cave City flew away through the bare tree tops and probably returned to the same caves.

Then went to Old
Mammoth Cave but was
told by Roy Hunt that there
were no bats in it so
I did not go in.

Went to Dixie Cave,
a quarter of a mile from Old
Mammoth Entrance and found
a good many bats hanging
to the roof all the way back
to the entrance, less than a quarter
of a mile. Estimated at least
1000 bats in the cave, but
all high up on the roof.
Fired into one bunch and brought
down three Myotis lucifugus and
three Myotis sodalis - and
in another bunch brought down
only one lucifugus. Could
not recognize any species on
the ceiling but presume these
two predominately as they did
last Sept. here.

Near the back end of the
cave a bunch of probably
50 in a circular mass were
not torpid but constantly
waving and squeaking and
when a powerful flashlight
was thrown on them many
flew and a shot at the few
remaining brought down only
one, a Myotis subulatus and the
rest all flew away.

The temperature here was
54° F. and humidity about 100°.
Others were heard squeaking
on the roof and many dense
clusters probably kept the
inside individuals too warm.

Very little grass could be
found under the bats where
most densely gathered, as
they soon eat the food they
contain and get no nourishment
leave in spring.

Nov. 16 Saturday at
Cave City -

Went to Colossal Cave
where bats are more numerous
than any other cave I have seen
in this region. They extend
back half a mile and into several
side rooms and probably total
5000 or more. I counted 85
in one little bunch and a dozen
such bunches were in sight
besides long lines and little bunches
and single bats.

They are mostly Myotis lucifugus
and sodalis in about equal
numbers with a few hundred
scattered single Pipistrellus subflavus.

No difference in choice of location
could be seen although some
rooms sodalis predominate and
in others lucifugus and sometimes

both wings in the same bunch.

In many places they were only partially torpid and not very cold. Those in dense roseate bunches were most active generally and most in motion. A few flew when we came close with the flash light and many vibrated rapidly when the light was held on them for a minute. Others and especially the single bats were often so torpid they made no response to light or finger handled.

The *Pipistrellus* were most soundly asleep and most often covered with a dense coat of silvery dew. The thermometer with the bulb pressed against them went down to 58° but on the bodies of those in clusters

registered 52° while the air
gave a temperature of $54^{\circ} F$.
In summer the cave is said
to be 56° .

The humidity must be about
 100° tho the gravel and stones
generally seem dry.

There are some springs and
many dripping places and
some streams farther down
so there is plenty of moisture.
In places there is condensed
water on the ceiling.

Bats fully torpid have the eyes
and mouths closed and ears erect
and the bodies cold and almost
rigid, the wings folded close
against the sides and tails
curled over the rump between the
hind feet. When caught and held
in the hand they exude a drop

Found the skeleton of an *Ephtisicus fuscus* in a side tunnel not far beyond the first spring. It had been dead about a year and was mostly gone to pieces

of air but do not have any pellets to deposit.
All are fat and in good fur.

A few of the bats hang on side walls quite low down but most are on the roofs overhanging but often within reach of the hand.

Most of the bats were beyond any possible trace of light, as the outlet is up a narrow stairway and the light does not penetrate into the first room of the cave.

There is another entrance to the cave about 3 miles away but it is not used and the bridge leading to it has fallen inside so I do not really know how far the bats do go. but they were as far back as what went about half a mile.

Birds
Colossal Caverns, Nov. 14.

Rained all day but there were lots of birds in the woods in sheltered places, saw lots of juncos above.
Tree sparrows com.
Fox sparrows 1
White throats ? apparently com.
Purple finches com.
Chewink 1
Chickadees a few
Tufted tit " "
Meadowlarks, a flock in field
Flickers
Pileated woodpecker I heard
Robins com or
Bluebirds "

Wild turkey, Dick Noel says he knows of their being here not over 15 years ago and the keeper at Colossal Cave says they were there only 5 years ago.

The boys at Collected Cove
have skins of 2 gray foxes,
one raccoon, 2 skunks,
about 20 opossums and one
fox squirrel.

A few red foxes are said to be
here and a few bobcats.

One deer was seen two
or three years ago.

Birds at Mammoth Cave, Nov. 17

Turkey Buzzards	Common
Mourning Doves	"
Pileated Woodpecker	heard
Hairy "	"
Downy "	"
Red-head	3
Flicker	Common
Nuthatches	"
Cedar birds	6
Hummer	1
Chewink	1
White-eyed Vireo	1
Catbird	1
Robin	common

Nov. 17 left Cave City
Arrived at 9:30 AM.

Cloudy & foggy
Crows - heard
Grackles, flock of 200 in yards
and pig pen
Song Sparrows heard
Carolina Wrens singing
Mocking birds "

Toward Elizabethtown
1 Sparrow Hawk
Reyord Elizabethtown
2 Dabchicks in pond by Ry.
1 Marsh Hawk over field.

Louisville, Ky. 11 AM

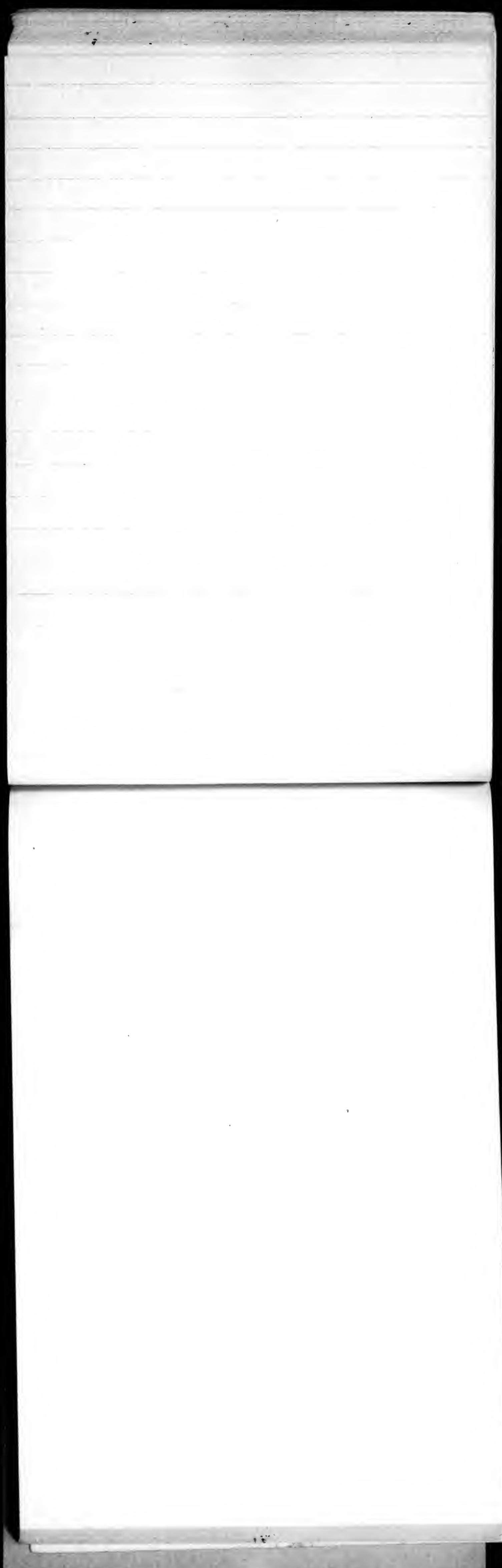
North Vernon Ind. 3 PM
Cincinnati, Oh. 5 PM

Arrived at Man. U. Park Nov. 17

Nov. 18

Arrived at Washington, D.C.,
9:30 A.M. with lots of
live bats from the caves

Nov. 19, Weighed and carded
my bats and put in ~~wooden~~
~~tops~~ cages in boxes for
hibernation - 4 species of
Myotis, *Lucifugus*, *sodalis*,
leibii and *septentrionalis*
and *Pipistrellus subflavus*.



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Bureau of Biological Survey.

Myotis sodalis, Dixon Lake. Nov. 15.

1. ♂

85 33 9 12

2. ♂

85 34 9 12

3. ♂

87 36 9 13

Myotis lucifugus

4. ♂

89 34 8 13

5. ♀

86 36 9 12

6. ♀

88 37 9 12

Long Eave.

Myotis lucifugus

7. ♀

90 38 9 13

8. ♂

83 33 8 12

9. ♂

85 33 9 12

Nov 15

Nov 15

